

M1 J13-16 Traffic Study

Microwave Radar Sensors.



The background

Costain and National Highways required a detailed traffic assessment to support a proposed 60mph speed limit through the M1 J13 to J16 upgrade works.

The project team needed accurate data on individual vehicle behaviour at both 50mph and 60mph. This included vehicle type, lane occupancy, speed, headway and vehicle gaps, giving a reliable picture of traffic flow and close-following behaviour.

Traditional temporary sensors could not provide the level of individual vehicle data required, so Mobile VMS was approached to deliver an enhanced, high-resolution monitoring solution.

Scope & Solution

Mobile VMS deployed microwave radar sensors across two monitoring sites within the scheme. Each site used paired radar units positioned on opposing carriageways, delivering bi-directional coverage and accurate sensing across up to eight lanes of traffic.

To meet the project's data requirements, each radar was equipped with an Individual Vehicle Data logger, enabling vehicle-by-vehicle analysis rather than simple averages. The full system was installed, tested and calibrated within two weeks of procurement, working closely with our supply chain partner Ver-Mac.

All sensors ran autonomously on our solar platform, supported by:

- 4G communication for fast data transfer
- Automated reset capability
- Continuous reporting
- Zero on-site intervention during the study period

The sensors recorded classification, speed, headway, vehicle gaps and lane occupancy, capturing the full conditions at both 50mph (control period) and during the 60mph trial.

Outcome

Mobile VMS produced weekly reports for TRL, supplying detailed, continuous and reliable data throughout the trial. The dataset allowed the 60mph project team to understand real driver behaviour, particularly the distance between vehicles, which was central to assessing safety at higher speeds.

The evidence gathered supported informed decision-making on the introduction of the 60mph limit through the works. The system ran remotely for the entire study with no downtime, demonstrating the reliability and effectiveness of the solar-powered radar deployment.

 **FIND OUT MORE**

To learn more about our wide range of products please contact us on **0800 690 6867** or visit our website.

T: 0800 690 6867

E: info@mobilevms.co.uk

www.mobilevms.co.uk

